



Photo by: Andy Olsen, Photographer

Katie Nekola

Wisconsin's environmental and energy policy is at a crossroads. Major decisions that are being made right now will impact our air, water, and land use for many years to come.

Because of a lack of leadership and planning over the last several years, we now face a scramble to build power plants and transmission lines to meet our projected future energy needs. But are all these new projects really necessary? How much is electricity use actually growing, and whose estimates should we believe? The Public Service

Commission of Wisconsin has estimated that demand for electricity has been growing at approximately 2.5% per year, both due to population growth and the fact that each of us uses more electricity than in the past, as we add more computers and electronics to our homes and workplaces. Some utility estimates are even higher.

Whatever growth rate we choose to accept, we face some basic decisions about how to deal with increasing demand for electricity. The conventional approach, favored by those who profit from selling fuels and electricity, is that we must find, dig up, and burn fossil fuels in ever greater amounts. They assume that nothing can be done *Continued on page 6*

Clean Wisconsin Disappointed in High Court Decision on Oak Creek Power Plant - Vows the Setback Doesn't Mean the Fight is Over (see page 5).

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Welcome Laurie Maloney!



Laurie Maloney joined Clean Wisconsin's staff in early May as the Office Administrator. Laurie brings a strong environmental background and significant experience in land use management, environmental issues, education, and administration. She is originally from Madison, graduated from UW Stevens Point in Resource Management, and has worked for the Wisconsin Department of Natural Resources, the Army Corps of Engineers, the U.S. Environmental Protection Agency, Wisconsin Chippewa Tribes and the Town of Dodgeville. In her free time she is an avid bird watcher, enjoys long walks with her dogs, and is an amateur astronomer. With her education and experience, Laurie is sure to be a major contributor to Clean Wisconsin.

Welcome Rebecca Murray!



Rebecca Murray comes to Clean Wisconsin as the Public Relations Manager. She will be teaming up with Shauna and the communications work being done at our organization. Rebecca has a Certificate of Business Administration and a Bachelor of Arts in Communication from the UW system. And she brings ten years of media and communications experience to the environmental fight. Rebecca has been active in the Middleton Jaycees since 1995 and enjoys spending her free time with her husband Greg and two children, Maggie age 3 and Nate age 10 months.

Welcome Jill Logeman!



Jill Logeman comes to Clean Wisconsin as the Development Assistant. She will be providing support to the development team with membership and fundraising activities. Jill is in the process of getting a Bachelor's degree in Wildlife Ecology and a certificate in Environmental Studies at the UW-Madison. Jill is originally from the Chicago area and spends her free time riding and competing with her thoroughbred horse, Michael.



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Clean Wisconsin, an environmental advocacy organization, protects Wisconsin's clean water and air and advocates for clean energy by being an effective voice in the state legislature and by holding elected officials and corporations accountable.

Founded in 1970 as Wisconsin's Environmental Decade, Clean Wisconsin exposes corporate polluters, makes sure existing environmental laws are enforced, and educates citizens and businesses.

On behalf of its 10,000 members and its coalition partners, Clean Wisconsin protects the special places that make Wisconsin such a wonderful place to live, work and play.

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The Great Lakes Agreement

Public input is being heard – and a second comment period needs your voice

Derek Scheer

The Great Lakes are one of the natural wonders of the world and it is our collective responsibility to protect them. They are a place we call home and a resource for us to use and protect they are the heart of the ecosystems that we rely on for life, and a gift of nature whose beauty and bounty enrich our lives and identify our region.

Recently the Council of Great Lakes Governors, led by Wisconsin's Governor Doyle, released the second draft of the Great Lakes Basin Water Resources Compact, designed as a contract between the eight Great Lakes states.

The Compact will be a binding agreement (herein known as the Agreement) between the states. It will guide decision making about the use of Great Lakes water with a goal to protect, conserve, restore, and improve the waters and natural resources of the Great Lakes Basin.

Clean Wisconsin was highly involved in last summer's public comment period and the negotiations that followed. We have reviewed this latest draft Agreement between the eight Great Lakes states and found that the negotiators took the public's input from last summer's public comment period and incorporated it into the latest draft. Therefore the latest draft is dramatically different than the first.

For example, the new draft contains much

stronger language against diversions. It prohibits diversions from the Great Lakes Basin, effective immediately upon passage of the Agreement by the parties. However, this prohibition has loop holes. For instance, communities straddling the line that separates the Great Lakes and Mississippi River Basins will be treated as if they existed completely within the Great Lakes Basin. Also, some near basin communities will be

ACT BEFORE AUGUST 25, 2005

Take action to help protect your Great Lakes. Sign and return the letter in this issue of *The Defender*. Or sign on at Clean Wisconsin's website and also find out where public hearings will be held. Visit www.cleanwisconsin.org.

allowed to apply for permission to divert water for Public Water supplies.

Clean Wisconsin and many citizens who submitted comments requested that the Agreement contain common methods of gathering data on water use. Region wide, a 30-day averaging period is used to measure water use per day. Looking at average daily water use over time allows short-term uses, like filling a large municipal swimming pool, to continue as usual. Unfortunately, the new draft only lowers

the averaging period from 120 to 90 days. This would allow large seasonal users like golf courses and large agricultural users to escape scrutiny. Clean Wisconsin will continue to push for the more reasonable 30-day averaging period.

Finally, the drafters responded to the public's demand for water conservation measures and standards. The 2005 draft requires each state to enact a water conservation plan, designed to retain and restore supplies of Great Lakes surface and groundwater, reduce demand wherever feasible, and improve the efficiency of all users. However, nothing must be done within the first 15 years, and no timelines or targets have been set to insure the health of our water supplies.

The drafters are paying attention to the public. Because they are listening, Clean Wisconsin's efforts to bolster public participation and contribute to the negotiations are even more important. We need to maintain these efforts to make sure that the protections for the Great Lakes are as world class as the resource they are protecting.

Now is the time to take action to help protect your Great Lakes. Please visit Clean Wisconsin's website to sign our letter, attend a public hearing, or learn how to write a letter to the editor. Please visit www.cleanwisconsin.org.

Clean Wisconsin part of Great Lakes Regional Collaboration

Will Hoyer

In May 2004 President Bush signed an Executive Order that recognized the Great Lakes as a national treasure and called for the creation of the Great Lakes Regional Collaboration - a collaboration of states, local governments, regional interests, Tribes and others groups. This Regional Collaboration met this past winter in Chicago and aims to produce a comprehensive strategy to protect and restore the Great Lakes by examining and addressing nine key priorities.

The priority issues that the Collaboration is seeking to address include water diversions, polluted runoff, sustainable development, invasive species, indicators and information, habitat, toxics, coastal health, and polluted sediments. Strategy Teams made up of government and elected officials, non-profit groups and others have been formed around each of these areas. Paralleling this Regional

Collaboration is a statewide effort in Wisconsin to describe the status of these issues in the state, identify priorities related to them and then find possible solutions. Clean Wisconsin is working closely with the state Department of Natural Resources and the Council of Great Lakes Governors (CGLG) on these issues.

The top regional priority for the CGLG is addressing water use and diversions. This is being done separately through the Annex 2001 process. The second key concern that underlies each of the other eight areas is promoting programs that protect human health against the effects of pollution. Other overarching considerations include the perspectives of Tribal interests and the role of research and continued or improved monitoring.

The goal of the Regional Collaboration and Governor Doyle, who co-chairs the CGLG, is to have the final regional and state priorities and



strategies identified by the end of this year. For more information on the Great Lakes Regional Collaboration:
<http://www.epa.gov/greatlakes/collaboration/>
<http://dnr.wi.gov/org/water/greatlakes/>

Wisconsin needs updated Shoreland Management Program

Will Hoyer

Wisconsin's lakes have been protected under the same shoreland protection standards for almost 40 years. After three years of working with an advisory committee of waterfront property owners, environmental groups, construction industry and local governments to put together a new set of rules, the Wisconsin DNR will be holding a series of public hearings on the proposed new set of rules (NR 115) this summer.

Lakes across the state have seen very rapid growth over the past decades with more houses and bigger houses being built on lakes of all sizes. This growth has put increasing pressure on the lakes, threatening water quality, habitat and the lakes' scenic beauty. Counties across the state struggle to keep up with enforcement and need more flexibility to craft their own standards that meet their needs and address loopholes that have been exploited.

The current NR 115 rules do not adequately protect our public right to clean water. The rapid development of our lakes has led to deteriorating water quality, decreases in habitat and less natural scenic beauty surrounding our lakes.



Studies in Minnesota, Maine and Wisconsin have shown that as water and scenic quality goes down property values decline as well. Declining water quality also leads to fewer fish and less recreation and therefore, less money in the hands of local communities and businesses.

Currently NR 115 rules do not allow counties and private landowners the flexibility that they need to address building and development concerns and problems that they face. Nor do they create enough certainty for property owners as to whether or not permits will be granted for building and development.

The proposed revisions will likely be far better than what is currently in the Wisconsin Administrative Codes. They will create better protections for Wisconsin's lakes by setting limits on impervious surfaces, requiring vegetated buffers and requiring environmental mitigation for new constructions. The proposed new rules also are good for property owners and the counties in charge of creating the ordinances to be enforced as clarity and flexibility are key components to the new rules. The new rules also include incentives and performance standards.

We urge you to support the updated NR 115 rules by attending the public hearings that will be held across the state this summer. This is an important opportunity for all of us who care about Wisconsin's lakes to take a stand and support the strengthening and improvement of state rules designed to protect our waterways.

For updated information, including times, dates and locations of the public hearings:
www.cleanwisconsin.org
<http://www.dnr.state.wi.us/org/water/wml/dsfm/shoreland/news.htm>

Waukesha announces plans to protect water resources

Will Hoyer

Cities across the country are recognizing that strong water conservation efforts are the key to solving water shortage problems. Waukesha and other Milwaukee suburbs are facing water shortages as growth and excessive water consumption have depleted their aquifer, and contaminated their groundwater with radium forcing them to look for solutions. Waukesha has been pushing for access to water diverted from Lake Michigan, but in early May outlined a water conservation and protection plan that aims to reduce water use 20% per capita by 2020. Clean Wisconsin supports Waukesha's plan to reduce its water usage with the hope that Waukesha will recognize that it can solve its water quantity problems without starting down the slippery slope of diverting water from Lake Michigan.

The 4-part plan as outlined by Waukesha mayor Carol Lombardi and Waukesha Water Utility general manager Dan Duchniak emphasizes conservation, planning and zoning, stormwater management, and sourcewater protection.

Details of Waukesha's conservation plan are set to be released in September 2005. The plan will likely include a combination of restrictions and incentives.

Planning and zoning ordinances will be updated to require that new developments have no impact on the recharge of aquifers. Low

impact development such as, utilizing wetlands, raingardens and other means will attempt to keep rainwater where it falls rather than sending it away through storm sewers to surface waters. The new zoning ordinances will also limit non-point source pollution caused by excessive runoff from heavy rainstorms and snow melt by increasing the amount of natural landscape in the city and limiting impervious surfaces.

The city of Waukesha will be working with Waukesha County to develop an integrated stormwater management plan to help limit the amount of polluted runoff that makes its way into surface water. Stormwater best management practices will be adopted to allow rainfall and snowmelt to soak into the ground and help recharge the aquifer.

Finally the city will work with the county and its neighbors to protect sources of drinking water from pollution. Duchniak said in a press release "Protecting our source waters is not just the responsible thing to do; it also makes economic sense because treating or replacing water sources is more expensive than prevention of the problems."

At an April Public Policy Forum event in Waukesha County several speakers noted that conservation was a key part of solving southeast Wisconsin's water shortage puzzle. Keynote speaker Douglas Cherkauer, hydrology professor at UW-Milwaukee, said that with a few changes, including conservation, the region has more than enough groundwater to support growth



and Waukesha does not need to tap into Lake Michigan. It is encouraging to see cities like Waukesha and others begin taking important steps toward conservation and protection of their vital water resources.

For more information:
<http://www.publicpolicyforum.org/WaterSymposium.php>
<http://www.jsonline.com/news/waukesha/apr05/321918.asp>

ENERGY UPDATES:

Clean Wisconsin Disappointed in High Court Decision on Oak Creek Power Plant

Clean Wisconsin is disappointed with the Wisconsin Supreme Court's ruling today restoring the construction permit for a large coal-fired power plant in Oak Creek, Wisconsin. The decision overturns the Dane County Circuit Court's November, 2004 ruling that threw out the Public Service Commission's (PSC) approval for the plant as illegal.

"The Court was divided," said Katie Nekola, energy program director for Clean Wisconsin. "Three of the six justices expressed serious concerns about the environmental analysis for this plant, but the majority deferred to the authority of the PSC."

Pam McGillivray, Clean Wisconsin's attorney in the case, agreed. "It is unfortunate that the Commission has been granted such wide deference to ignore the serious health and environmental consequences that will result from this project," she said.

Nekola said the Supreme Court decision was a setback, but noted that Clean Wisconsin and SC Johnson still have pending challenges to the project's air and water pollution permits. "We remain very concerned about the impacts to Lake Michigan from the damaging and outmoded cooling water system they have proposed, and will continue to fight for the best environmental controls on this plant."

Clean Wisconsin and SC Johnson, Inc. originally challenged the coal plants on the basis that the PSC failed to require a complete application from We Energies, making the whole process fatally flawed, and that the PSC erred in not examining a gas-fired power plant as a better alternative. The Dane County Circuit court agreed. In November 2004, Dane County Circuit Court Judge David Flanagan vacated the PSC's decision to approve construction of two coal-fired power units in



Oak Creek and Caledonia, along with support facilities for a third unit. The judge noted numerous deficiencies in the PSC process and decision, including: the commission's failure to consider alternative locations, failure to follow the state's energy priorities law, and failure to account for more than \$260 million in transmission improvements that would be necessary for the project.

In December 2004, Clean Wisconsin and SC Johnson filed papers with the Wisconsin Supreme Court contesting We Energies and the PSC's coordinated petitions for an expedited review by the state's highest court

ERGS Offshore Cooling Water Intake Structure Permit

Clean Wisconsin and SC Johnson filed a lawsuit in Dane County Circuit Court, challenging the DNR's permit for the controversial once-through cooling system.

The permit challenge is based on the DNR's erroneous classification of this new water intake structure as an "existing facility," which would allow much more relaxed standards for its

regulation. In fact, the stand-alone facility would be built as part of the expansion of the Oak Creek power plant and would be entirely new. Because this new system does not use the best technology available, but instead uses a process that has been banned in other states for thirty years and is far more environmentally harmful than alternatives, it would not meet permitting standards for a new facility. The nearly two-mile long pipeline extending out into Lake Michigan would take in 2.2 billion gallons of water a day, and discharge water that is fifteen degrees warmer than lake water. The water intake would also kill billions of aquatic organisms.

A permit appeal was also filed at the DNR, requesting a contested case hearing on the legality of the permit.

ERGS Air Permit Appeal

Clean Wisconsin and SC Johnson also filed a lawsuit in circuit court, challenging the air permit for the plant. Based on the DNR's failure to consider health issues or other alternatives that would reduce pollution, scheduling for this case will begin early in July.

Arrowhead-Weston Transmission Line

Technical hearings for the wetlands permit appeal were held in late June in Hayward, Wisconsin. Parties will submit briefs and we expect a ruling later this summer. AB 437, the bill that gives utilities the right to condemn public land, passed both houses and will go to the Governor for his signature. This law would override Douglas County's right to deny ATC access to county forest land for the transmission line. A committee of the Douglas County Board of Supervisors recommended that the County negotiate with ATC. SOUL, Clean Wisconsin and local residents are determined to continue to fight this line.

Iowa Governor signs off on a new set of standards



Iowa's newest executive order begins with a statement of social responsibility if ever there were one: "Whereas, State government is a major consumer of energy and should be a leader in adopting cost-effective energy efficiency practices..." And what follows is a path for all state agencies to follow toward improved energy conservation practices. Issued on Earth Day, Governor Tom Vilsack's executive order #41 establishes wide-ranging expectations, which are to be reported upon quarterly by state agencies.

These standards include: a reduction in energy consumption by state-owned facilities by an average of 15% by 2010; a mandate that at least 10% of electric consumption come from renewable energy resources; a goal that 100% of vehicles procured by the state by 2010 are hybrids or run on alternative fuel; and that all agencies operate on biodiesel when available, with bulk diesel purchase of 5% biodiesel by 2007, and 20% by 2010.

The executive order reinforces Iowa's commitment to energy efficiency improvements, updating the effort according to technologies now available. Since 1988, it was reported, state facilities have invested over \$51 million in improvements, resulting in annual savings of about \$100 million. There's obviously more to come. And that's a good thing for everyone, especially considering Iowa's potential to produce nine times the 2003 state electrical consumption in wind power, as well as its capacity for 900 million gallons of ethanol and 20 million gallons of biodiesel per year.

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Green or Gritty? Safe or Sooty?

That group worked for a year and made its recommendations in October 2004. Now it's time for legislation to make those recommendations into law, and Clean Wisconsin needs your support to make clean energy and efficiency a priority in our state.

Continued from cover page

to significantly affect what has been called the "sacred principle of endless growth." Jobs and prosperity supposedly depend on the availability of ever-larger supplies of electricity. What's not discussed is the price of all of these new power plants and transmission lines.

Every new large power plant adds at least \$5 to the average homeowner's electric bill each month. According to a recent study by the PSC, three Wisconsin utilities (MG&E, WPS, and WP&L) already charge more than 17 other utilities in Wisconsin and neighboring states, and most of the cost of new power plants has not hit customers yet. WE Energies just received approval for one rate increase, and two more are pending. And, although the price of electricity is an important issue, especially for those on fixed or low incomes, the health costs of adding more polluting power plants would be even more serious.

There's a better way

On September 30, 2003, Governor Doyle created the Task Force on Energy Efficiency and Renewables, asking representatives from the utilities, customer groups, labor, industry and government to reach a consensus on ways to use efficiency and renewable energy to help economic growth, decrease our dependence on out-of-state energy, and reduce the environmental harm from fossil fueled power plants.

"The best way to predict the future is to invent it."

Alan Kay, personal computer pioneer

What the Governor's Task Force on Energy Efficiency and Renewables recommends:

- Update and improve the state's commercial energy code. In other words, make commercial buildings more energy efficient.
- Require state agencies to purchase energy-efficient products and appliances
- Protect funding for Focus on Energy, the statewide program that provides assistance and grants to homeowners and businesses that want to invest in renewable energy and/or energy efficiency.
- Establish a new standard for renewable energy use in Wisconsin, to average 10% by 2015.
- Establish a target for state agencies to purchase at least 10% of their electricity from renewable resources by 2006 and at least 20% by 2010.
- Create a sales and use tax exemption for customer-owned renewable energy systems such as small wind turbines, solar panels and solar water-heating services.
- Encourage the research and development of

rural renewable (animal waste) energy systems, and particularly anaerobic digesters which take methane gas from manure and turns it into electricity.

- Notify customers of the benefits and costs of these programs, at least annually.
- Better integrate the efforts of the PSC, the Energy Priorities Law, and Public Benefits programs.



photo: Environmental Law and Policy Center

What you can do

Clean Wisconsin will follow the process as these recommendations are proposed as legislation, and will ask for your help in contacting your senators and representatives to urge them to support clean energy and saving energy. This legislation will demonstrate a real commitment to a sensible energy policy in Wisconsin, one that would create new, sustainable jobs, reliable income for farmers, reduce money spent importing energy from out of state, and most importantly for us, reduce power plant emissions of mercury, particulate matter, greenhouse gases and a host of other deadly pollutants. It's time to get smart about our energy policy, and the enactment of the Task Force recommendations will be a step in the right direction for Wisconsin.

Member Arlyn Olson of Racine writes to the Racine Journal Times...and points out the need for more consistent public policies

Thank you for two recent examples of responsible journalism. The article on trees (4/15/05) presented an excellent summary of their benefits and promoted a practical program through which concerned people can contribute to the aesthetic enhancement and environmental enrichment of the community. Many people want to participate in programs that contribute to the common good. We need only to be informed of them. So please continue to publicize them as they are offered.

I also appreciated the editorial (4/14/05) which promoted a more aggressive plan to limit mercury emissions than the one proposed by the

Bush administration. You rightly frame this issue in terms of public health and economic vitality. The incoherence of public policy is mind-boggling! On the one hand Gov. Doyle is justifiably suing the EPA over its attempt to allow more mercury emissions. On the other, the DNR permits We Energies to emit even more of this heavy toxic metal. On the one hand, the EPA has designated the entire western shoreline of Lake Michigan as an ozone non-compliance area. On the other, the DNR permits We Energies to discharge even more pollutants. On the one hand, state law prioritizes the type of energy sources to be used. On the other, the PSC and the DNR permit the

increased use of coal at Oak Creek, a source low on the list of sources. This defies comprehension and common sense. Perhaps a future editorial could consider the source of such social schizophrenia. If neither the state supreme court nor the Army Corps of Engineers brings coherence to this matter, I trust responsible journalists will expose and protest these assaults on the earth and all its inhabitants.

Thanks Arlyn, Clean Wisconsin could not agree more!

Don't reach for the bottle!

Will Hoyer

While Perrier's plans for a bottled water plant in Wisconsin were defeated several years ago, bottled water continues to be a hot commodity and its popularity continues to threaten lakes, rivers and streams. Bottled water has many other hidden (and not so hidden) costs associated with it and they are not solely environmental costs.

Since bottled water comes out of the ground many people do not realize the impacts bottled water plants have on the surface waters. Because surface water and groundwater are connected, large withdrawals of groundwater for uses like bottling water will harm wetlands, lakes and streams by reducing the groundwater flow into these waters. There is evidence across the country that bottling plants have led to springs drying up and reduced water levels in streams and rivers.

Bottled water has many other costs associated with it:

- **Waste** – Vast quantities of bottles end up in landfills. It is estimated that only 15% of bottled water bottles are recycled.
- **Cost** – Bottled water costs consumers hundreds to thousands of times more than municipal tap water. Most of the hidden external costs for transportation and environmental impacts are not even included.
- **Safety** – Bottled water is not required to meet the same safety standards as tap water nor is it monitored as frequently. In most cases the standards that bottled water, regulated by the Food and Drug



Administration, are required to meet are not as rigorous as those of municipal tap water, which is regulated by the EPA under the Safe Drinking water Act.

- Drinking tap water is cheaper, safer and supports your local economy by providing needed revenue for local water utilities (is it too wonkish to talk about paying for water infrastructure/ the pipes that bring water to our houses - DS). It limits our environmental impacts on our lakes and streams. Next time you're thirsty, reach for an empty bottle, fill it up with tap water and feel good about drinking one of our most valuable resources!

FDA "Standards of Identity" for types of bottled water

- Artesian water - Bottled water from a well that taps a confined aquifer in which the water level stands at some height above the top of the aquifer.
- Mineral water - Bottled water containing not less than 250 parts per million total dissolved solids may be labeled as mineral water. No minerals can be added to this product.
- Spring water - Bottled water derived from an underground formation from which water flows naturally to the surface of the earth. Spring water must be collected only at the spring or through a bore hole tapping the underground formation and the spring.
- Purified water - Water that has been produced by distillation, deionization, reverse osmosis or other suitable processes. Many times it is simply tap water that has been purified.

This is innovation, from the ground up



John Harrison is The People's Champ of the cement industry, or at least the people's choice.

He was recently given that title on The New Inventors, a primetime call-in/log-on-to-vote TV show in his native Australia. Harrison and his firm, TecEco, have developed several cement technologies that have the power to effectively and economically transform city streets—and the built environment around them—into carbon "sinks", rather than sources.

By blending magnesium oxide and conventional cements, TecEco's environment-friendly cement uses one of the earth's most abundant elements, lessens the need for burning fossil fuels, and forms clean, strength-giving minerals that can coexist with many different wastes acting as aggregates and fillers. Once it's in porous concrete form, eco-cement needs carbon dioxide to harden and set. Therefore, it absorbs large quantities of the very greenhouse gas that concrete is partially responsible for, contributing about 10% of global CO2 emissions. (Follow the links below for a fuller explanation of the process and benefits.)

Now that John Harrison has won the votes of the Australian people, it's up to his industry to explore the possibilities he so passionately points out. He's proven the people want sustainability. The next natural step is to make it happen.

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Eco-news from around the state

Laurie Maloney

Neillsville -

Veterans Park recycling waste water

Highground Veterans Memorial Park is now utilizing a new and unique wastewater recycling system in the restrooms, one of only a few in the state. The wastewater from their restroom facilities is now being recycled. After being flushed, the waste water moves to a treatment tank where it travels through aerators (to oxygenate the water), 60 various filters, including a charcoal filter to remove odor, and two trips underneath ultraviolet lights.

The 140 acre memorial park, who's mission is education and healing, has 200,000 visitors a year and desired a more pleasant and modern system. They had been using port-o-potties for 18 years, so pursued grants and donations to put in new restroom facilities. The system and labor was provided by Wisconsin Onsite Wastewater Recycling Association (WOWRA), an organization of professionals committed to promoting ethical business, health, and environmental practices in the profession. They donated the materials and labor as the Park needed a system, and the Association wanted to try out this technology and use as a teaching opportunity.

The advantages to this type of system are: cleaner waste water going into the environment, longevity of the septic field is greatly expanded, tank pumping is minimized (or port-o-potty needs eliminated), and overall the expenses are reduced in the long term. These types of systems are common in other countries but they are just starting to be used in the United States. The technology is used widely in Europe and can be adapted for homes and larger facilities.

For more information contact WOWRA in Madison on the web at <http://www.wowra.com/> or (800)377-6672. As this is considered a training facility, and an outstanding public memorial park, public viewing and inquiry is welcome, please visit Highground on the web at: <http://www.thehighground.org/> or call them at (715) 743-4224

Reported in the Marshfield News-Herald

Crandon -

Funds needed to pay off mine purchase

The Mole Lake Sokaogon Chippewa Tribe is trying to raise funds to help pay for the purchase of the former Crandon Mine in 2003. Purchasing of the mine protected thousands of acres of north woods lands from irreversible development and environmental damage. Mole Lake Band of Chippewa and the Forest County Potawatomi agreed to pay 16.5 million for the mine and 5,000 acres. The Potawatomi already paid their share, but Mole Lake needs to come up with 8 million dollars by April 2006 or could face foreclosure.

If you would like to donate, the Wolf River Protection Fund is accepting donations on behalf of the Tribe online at www.wolfriverprotectionfund.org or by mail at 3051 Sand Lake Rd. Crandon, WI 54520. Another donation option, with a minimum \$30 donation, you can own a piece of the Crandon mine. You receive a core sample, complete with a map of location/depth, and certificate of authenticity. For more information visit Mole Lakes Web site www.sokaogonchippewa.com/mine.htm

Door County -

E.Coli beach contamination report released

A report released in February, resulting from a 2 year study, from the Door County Soil and Water Conservation Department, provides a preliminary assessment of beach contamination and recommendations for the 2005 summer season. The report assesses 50,000 data collection points on 28 Door County beaches. Contamination of the beaches has been a growing problem, the advisories and/or closing rates in 2004 doubled over 2003, due to *E.Coli* contamination, which can pose health risks to swimmers.

Identifying sources of the contamination was a main focus of the study and appears may come from both storm water and birds. Some of the initial recommendations to study future beach contamination sources are to:

- Collect water samples for *E.Coli* for genetic analysis from storm water and stream outfalls during rain events
- Conduct sampling of *Cladophora* mats (algae) to determine effects on *E.Coli* levels
- Expand the post-rainfall sampling to look at levels of *E.Coli* being washed from impervious surfaces and land masses in close proximity to the beaches.

Beach management recommendations for the 2005 beach season are:

- Consider options for reducing storm water runoff to all monitored beaches with storm water pipes and or runoff areas
- Place signs that ask and actively instruct beach goers not to feed the birds at all of the monitored beaches
- Inform the public about the potential impact of runoff, dog/pet feces, and impacts of feeding birds on water quality.

More research analysis will be conducted over the next 2 years and a final report is expected in 2007. The existing report is available on the Door County Soil and Water Conservation Department website. map.co.door.wi.us/swcd/

“And the envelope please...”



By Becky Weber

Something as simple as a little envelope can make a huge difference. Really. It seems like such a small gesture, but the impact on our work can be enormous.

We all agree that we want and deserve clean water, clean air, and clean energy solutions. And we need to protect the special places that make Wisconsin wonderful. That is what Clean Wisconsin, along with all of our members, is doing.

And here is where the envelope comes in.

The little envelope tucked inside this newsletter is a cost-effective and convenient way for you to assist Clean Wisconsin to be an effective voice in the state capitol. Simply write and insert a check for whatever amount you choose, or donate via your credit card, stamp the envelope, and drop it in the mailbox.

It is as simple as that. Perhaps you took a minute or two, but that act of contributing to Clean Wisconsin has a major impact. You add your voice to our effort, and you support the important activities that really do make a difference!

We understand there are many worthy organizations asking for your support. Please know that we sincerely appreciate your help in making Clean Wisconsin your environmental voice! THANK YOU!

Clean Wisconsin Wishlist

Postage stamps

Printing services

Pro bono legal services

Pro bono communication services

Office supplies

Frequent flier tickets

Calling cards

Special thanks go out to all our incredible volunteers and interns!!

Jessica Wagner

Jessica Wagner, originally from Evanston, IL, is a sophomore at the UW-Madison pursuing a BA in Journalism and Mass Communication. Jessica enjoys the array of campus and community opportunities Madison has to offer. Currently she spends her time as a mentor with the organization, Big Brothers/Big Sisters, is an active member of the Wisconsin Alumni Student Board (WASB), and belongs to the Public Relations Student Society of America (PRSSA). In addition to these activities, Jessica is an ardent runner, loves sharing time with friends and family, and has recently taken up knitting!

Thanks for all of your assistance with the Defender!

Reintroducing Jamie Annear-Feyrer



Jamie Annear-Feyrer has interned with Clean Wisconsin on a couple occasions, including working on climate change and the Wolf River Batholith nuclear repository issue.

Most recently she's helping with public relations projects. Jamie came to us to help spread the message of clean

air, clean water, and clean energy for Wisconsin while working on her environmental communication skills. She's in the process of completing her master's degree in Life Sciences Communication at UW-Madison, and hopes to graduate this summer. Jamie grew up in the middle of Wisconsin, and has an appreciation for the rolling hills of the southwestern parts of the state and the classic northwoods. In her free time, Jamie likes to hike, camp and backpack and is learning how to garden, with the hopes of building a rain garden at her house.

Thanks for your continued help Jamie!

Justin Dohms



Justin Dohms is a Wisconsin native and 2003 history graduate from the UW, where he explored environmental and sustainability issues. Clean Wisconsin attracted him with

our state level high profile regarding state environmental protection. He wanted to be a part of our successful work. Justin has been researching ethanol—its production and combustion on a large scale—to help in determining the environmental ramifications of proposed state legislation to mandate an increase

in its use. Justin loves spending time outdoors, is an active runner, snowboarder and climber. Wisconsin has a wealth of natural resources, but his favorite place in the state is the Mississippi River, which flows past his hometown of La Crosse.

Thanks Justin, you did a great job for us and we wish you the best of luck in your travels out west!

Kate Gerndt

Kate Gerndt is Clean Wisconsin's longest running intern. She has diligently developed a database enabling Clean Wisconsin to catalog membership feedback. The intent is to allow for easy tracking of members by location and particular subjects of concern, while also identifying potential professional and citizen allies. Kate graduated from the UW-Madison in 2000, with a degree in Botany and Biological Aspects of Conservation. She is pursuing a career in the environmental sciences and feels interning for Clean Wisconsin allows her to provide a service and gain valuable experience at the same time. Although she doesn't have a lot of free time at the moment, she identified a few of her all-time favorite books as Anne of Green Gables and Jitterbug Perfume, and her favorite CD is Nighthawks at the Diner.

Thanks for everything Kate!

Member Profile: Ken and Carol Engelhart

Joan Moore, Volunteer

Ken and Carol Engelhart live in Marshfield: Ken is an internal medicine physician and Carol is a nurse working the medical intensive care unit. They both love being outdoors and enjoy hiking, biking, swimming, canoeing, sailing, running, cross-country skiing and snow-shoeing. Their cabin is close to their favorite spots in Wisconsin — the gorgeous areas of Chequamegon Forest, Copper Falls State Park, and Lake Superior at Bayfield. The Boundary Waters is another favorite vacation spot.

The Engelharts joined Clean Wisconsin in 1988, then called Wisconsin's Environmental Decade, in the days when workers went door-to-door, explaining the cause, and signing up members. "We recognized the degradation of our environment that already had occurred, and realized that protection is needed against the constant threats to our environment and the

health of all humanity." Not surprisingly, Ken considers himself to be a political activist, and they are monthly donors to Clean Wisconsin.

In their opinion, the most important environmental issues facing the state have to do with "reducing our dependence on dirty, old energy sources, and promoting clean renewable energy." They are pleased with Clean Wisconsin's victory in blocking the coal-fired power plant construction in Oak Creek and are encouraged by the increasing interest in wind power in Wisconsin. The most heartening victory in recent years has been the blocking of the Crandon mining project, which protected the Wolf River from cyanide and other polluting toxins.

The Engelharts' three children have grown and gone, but their "two spoiled golden



retrievers (Faith and Hope) have no intention of leaving the comforts of home!" The humans in the household do enjoy their home life, too, especially eating Carol's chili and good salads, reading and listening to music -- classical, Christian contemporary, Eva Cassidy, Norah Jones, and George Winston in particular.

www.cleanwisconsin.org

The Art of Change

Shauna Cook

Clean Wisconsin recently completed a unique art project, called The Art of Change, which incorporated the environment not only as its topic, but as a part of its production medium. We worked with a UW – Madison fine arts student named Melissa Cooke, who received a Wisconsin Idea Fellowship funded by the Morgridge Foundation. (Clean Wisconsin also received a small stipend to cover staff time and basic materials to complete the project.)

Melissa is a Madison-based artist whose art has been devoted to environmental issues for several years. She shows the beauty of Wisconsin and our natural resources in some of her pieces and in others shows the negative impacts people and corporations can have on this beauty. In this project as well as others, she has taken steps to reduce the environmental impact of her art, finding unique ways to generate prints that do not use the traditional chemicals.

The Art of Change took place throughout 2004 and resulted in beautifully produced wood cut and serigraph prints depicting images from Clean Wisconsin's environmental work. (See photographs on this page.) And since images can change the way people see things and help convey messages more clearly, it was a great



opportunity for us to use fine art as a way of amplifying our environmental voice.

Clean Wisconsin is using the artwork in a number of ways:

- We sent one set of 3 images to each of the wonderful places in Wisconsin that display our newsletter, The Defender. There are more than 60 libraries, coffee shops, bookstores, grocery stores and other places that distribute The Defender to their customers. Now they also have a beautiful set of prints to help educate people on environmental issues facing Wisconsin.
- We will offer major donors and house party hosts framed limited edition artwork as special thanks for their support. (There are a limited number of pieces so sign up to host a party soon!)

- Occasionally Clean Wisconsin is asked to donate an auction item to a worthy organization's fundraising efforts.
- We have upgraded the appearance of our Madison and Appleton offices with a variety of framed pieces.
- Newsletters and informational mailings may include Melissa's artwork to emphasize our message.
- In the future we may use the images in a print public service announcement to gain unpaid ad space in Wisconsin publications and environmental magazines.

Many thanks to Melissa Cooke for all her hard work. The life of this artwork will last for many years.

Thank You Racine!

Clean Wisconsin completed a second door-to-door canvass in Racine county; residents get behind coal-fired power plant lawsuit and also provide financial support



Becky Weber

Clean Wisconsin recently completed its second door-to-door canvass in the Racine area. Thanks to help from our new members, Clean Wisconsin built support for its clean water campaign and its general membership in an important part of the state: Racine.

The door-to-door canvass was strategically held at an important time during our fight over the Elm Road Generating Station (ERGS). We held the canvass the week before the WDNR hearing on February 16, allowing us to gather hundreds of written comments on the adverse affects dirty coal plants will have on Lake Michigan and the surrounding community.

We know we will be able to rely on our new and current members in the Racine area to help us as this process continues. Thank you to the thousands in the Racine area who support Clean Wisconsin and our clean air campaign.

For more details on the Elm Road Generating Station, see stories on page 5 in this issue, or contact Derek Scheer, Water Program Director at dscheer@cleanwisconsin.org.

Paper or Plastic... An Environmentally Safe Solution

Jessica Wagner, Volunteer

When deciding between paper or plastic bags to tote grocery goods home from the market, you may actually go for an entirely alternative option. In comparing the pros and cons between paper and plastic, both are detrimental to our environment: causing pollution and depleting natural resources.

The Facts: Paper vs. Plastic bags

Sources

Kraft paper is produced from tree pulp and is the result of a process in which wood chips are placed in a high pressure, high temperature environment and mixed in a toxic chemical solution.

Plastic is a product of oil, a resource found within creases in the earth that are tapped to access the oil content which is then shipped to a refinery where the solution undergoes a 'biogeochemical' process which produces a raw product called polyethylene, or a malleable material that plastic bags are composed of.

Pollution

The process of making paper bags is extremely detrimental to the environment wherein deforestation and chemical pollution are significant byproducts. In 1999, a reported 14 million trees were cut down to produce 10 billion paper bags for use in the U.S. within a single year. The loss of forest escalates greenhouse effects and the use of chemicals used to produce the paper contaminates large amounts of clean water reservoirs and releases pollutants into the air.

Aside from the fuel burning power that is used in the oil drilling process, electricity is solely used to produce plastic. The coal fire (generated by burning old tires) is then used to create the bags.

Recycling

Paper can either be stored in a landfill or recycled by undergoing a lengthy procedure in a plant. To encourage businesses and consumers to recycle, the government has introduced mandates that enable a 10-15% price premium on recycled products to maintain competition within the industry.

Similar to paper, plastic can be placed in a landfill or recycled by simply melting and reforming



the product. Studies show that it actually takes 91% less energy to recycle a pound of plastic as compared to a pound of paper. Amazingly, the Wall Street Journal reports that a mere 10-15% of paper bags and 1-3% of plastic bags are actually recycled.

Based on these pros and cons, the comparison drawn between paper and plastic bags proves that neither is very good for the environment and the best solution to this question is to simply use reusable containers and bags!

Thank you Jim Carter and Victoria Miller!

Becky Weber

Clean Wisconsin would like to say a huge thank you to the hosts of a successful house party fundraiser held in May. The event was held at the beautiful home of Jim Carter and Victoria Miller in Eleva, Wisconsin.

Thanks to the generosity of party hosts, Jim and Victoria, and the generosity of the sponsors and the people who attended the event, Clean Wisconsin raised much needed general operating funds.

We are pleased to have many new members in the Eau Claire area who are ready to "do the next right thing." And a special thank you to our renewing members who attended the event and to those who couldn't attend. To all of you, your support is invaluable.

This event was an excellent opportunity for Clean Wisconsin staff and board members to mingle and hear personal stories of why protecting Wisconsin's special places is important to you. On behalf of Mark, Laurie, myself (Clean Wisconsin staff) and Steve Brick and Will Fantle (Clean Wisconsin board members) thank you for a wonderful time.

Members Make a Difference – Hosting a House Party for Clean Wisconsin

Becky Weber

With a bit of time and your Rolodex, you can have a big impact on Clean Wisconsin by hosting a fundraiser. Member-sponsored house parties help us raise much needed general operating funds to support clean water, clean air, and clean energy programs.

In addition to raising money, these statewide events are excellent opportunities for Clean Wisconsin members, staff and board to mingle and hear personal stories of why protecting Wisconsin's special places is so important to you.

If you are interested in hosting a Clean Wisconsin fundraiser in your home please contact Becky Weber, at 608-251-7020, ext. 17 or beweber@cleanwisconsin.org.



Duane Dingmann, Robin and Jane Welsh, event sponsors, and Jim Carter, event host.



Erik Ringsrud and Nicole Lasker with Mark Redsten.



Kathy Olson, event sponsor, and Vicki Miller, event host, enjoying the wonderful hors d'oeuvres.



For the young environmentalists...

The Kids' Page



Butterflies and Moths

Spring and summer is the time to observe the wonders of moths and butterflies. Keep your eyes open for the four stages of these amazing creatures.



The Life Cycle

Four stages make up the full life cycle of most butterflies and moths.

Stage 1: Egg

After mating, the adult females lay eggs in a place where food is readily available after the eggs hatch.

Stage 2: Larva (caterpillar)

When the eggs hatch, the larvae look for a food source. Often larvae eat the leaves they hatch on. Other larvae eat stored cereal or even woolen clothes. In a few species, the larvae are predators. Some butterfly caterpillars, for example, eat aphids; some create complex associations with ants, live in their nests, and eat ant larvae. Larvae eat continuously, periodically shedding their skin as they grow to hundreds of times their original size.

Stage 3: Pupa (cocoon or chrysalis)

The larvae of most moths build cocoons around themselves. This is where they live during the pupa stage of life. Most butterflies are not enclosed in a cocoon but are attached to a leaf or twig by a band of silk. This is called a chrysalis. These homes for the pupa of moths and butterflies are usually made of silk spun from two glands filled with a thick glue-like material. This is pressed out in two slender threads that stick together as they emerge from an opening or "spinneret" on the larva's lower lip. In the air they harden into a tough silk fiber. Inside the cocoon or chrysalis, the structures of the pupa totally transform or change.

Stage 4: Adult

Finally, fully transformed to a glorious flying creature, the adult moth or butterfly pushes and pokes its way out of its temporary home. But it better get busy. It only has a few days to find some food, visit some flowers, drink some nectar, find a mate and lay some eggs, so the cycle can begin all over again.

See For Yourself

It's time to hunt for cocoons. Look for them attached to branches or twigs, under loose bark of dead trees, among fallen leaves, and many other places. If you'd like to keep a cocoon until it hatches, it should be kept in a cool, moist place. What fun it would be to see what emerges later this spring or early summer.

Word Search

Try your hand at this word search. Circle the words. Hint: the words can be found vertically, horizontally or diagonally.

1. A moth or butterfly begins its life as an _____.
2. The caterpillar is also called a _____.
3. A pupa may hang from a _____.
4. During the _____ stage, a moth or butterfly is forming.
5. The _____ emerges out of the pupa.

B P C H L P W F J
 G U J S E G G T C
 M P T G W K D N R
 Q A F T D M R W B
 C L J Y E Z T Q S
 T F T L A R V A M
 H R P N P L F N H
 V G E K B K Q L X
 J S C E G X R I Y

butterfly
 egg
 tree
 larva
 pupa

What's the difference?

No absolutely consistent characteristics exist for separating butterflies and moths. Butterflies generally have scaleless, threadlike antennae with a club on the end. Moths have a wide variety of antennae forms, often feathery in appearance. Butterfly wings are often brightly colored, and the wing color and pattern play a key role in mate recognition and courtship. Most moths are dull shades of brown. Males are often attracted

to females by a powerful chemical signal that the females release. About 18,000 species of butterflies are known worldwide. More than 130,000 moth species have been named, and many more probably exist.



Colors and Tricks

The color patterns of the wings of butterflies and moths help them to protect themselves against predators. Some species have eyespots or other markings that draw the attention of enemies away from vital body parts to the wings. In many species, wings looking like the natural background of soil, bark, and leaves provide camouflage. This protects the butterflies and moths from hunting predators looking for a tasty meal.

Sources Used

- http://www.prekinders.com/butterflies_kids.htm
- <http://www.worldalmanacforkids.com/explore/animals/butterfly.html>
- <http://www.newton.dep.anl.gov/natbltn/400-499/nb468.htm>